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EXAMINER

OLTMANS, ANDREW L

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/099,769

Applicant(s)

WOJCIK ET AL.

Examiner

Andrew L Oltmans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-37 and 39-43 is/are rejected.
- 7) ☒ Claim(s) 15 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Wada et al. 6,193,815 B1***

2. Claims 1-13, 16-17, 19, 21-25, 28-36, 39-40 and 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al. 6,193,815 B1 (Wada).

Wada teaches a conversion coating composition and the method of using the conversion coating composition to form a conversion coating, wherein the composition is free of Cr as recited in claims 1, 21, 24 and 42 (abstract and col 2, lines 36-41). Wada teaches that the solution may include zirconium in the amount instantly claimed, as recited in claims 1, 10-13, 24 and 33-36 (col 4):

35 The source of fluoride in the composition and surface  
treatment bath according to the present invention can be  
such fluorine-containing acids as hydrofluoric acid (i.e.,  
HF), fluotitanic acid (i.e.,  $H_2TiF_6$ ), fluosilicic acid (i.e.,  
40  $H_2SiF_6$ ), and fluozirconic acid (i.e.,  $H_2ZrF_6$ ), as well as any  
of their neutral and acid salts, but again the selection of the  
fluoride is not critical. The fluoride content in the surface  
treatment bath should be in the range from 0.010 to 12 g/L,  
preferably is from 0.050 to 5.0 g/L, and more preferably is  
from 0.10 to 3.0 g/L, in each case calculated as fluorine.

[emphasis added by examiner]

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Wada teaches that the solution may include tungstate (encompassing the types of tungstates recited in claims 2-6) in the amount instantly claimed, as recited in claims 1, 5, 7-9 (col 4):

and strongly paint-adherent coating. The accelerator concentration in the surface treatment bath must be in the range

(col 5):

from 0.010 to 2.0 g/L and is preferably in the range from 0.10 to 1.1 g/L. No acceleration of the film-forming reaction

(col 5):

The tungstic acid/tungstate source is not critical as long as it is water-soluble; however, again the use of the sodium salt (i.e.,  $\text{Na}_2\text{WO}_4$ ) or potassium salt (i.e.,  $\text{K}_2\text{WO}_4$ ) of tungstic acid is preferred because of their relatively low cost.

[emphasis added by examiner]

Wada teaches the temperature, the additives, the application steps and the cleaning steps recited in claims 2, 16-17, 19, 22-23, 25, 39-40 and 43 (col 5, lines 50-65; col 6, lines 5-19; col 7, lines 5-34). It is noted that claims 39-40 recite a temperature, but the temperature does not lend patentability to the claimed *composition*, since the composition is taught by Wada and the temperature is merely an arbitrary property that does not effect the composition as claimed. The claims do not distinguish over the teachings of Wada.

***Dolan 5,449,415***

3. Claims 1-14, 16-17, 19-24, 26-37, 39-40 and 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Dolan 5,449,415 (Dolan).

Dolan teaches a conversion coating composition and the method of using the conversion coating composition to form a conversion coating, wherein the composition is free of Cr as

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recited in claims 1, 21, 24 and 42 (abstract; col 1, lines 24-31). Wada teaches that the solution may include zirconium in the amount instantly claimed, as recited in claims 1, 10-13, 24 and 33-36 (col 12):

- 40     **(A) at least about 0.15M/kg of a component of fluo-**  
          **rometallate anions, each of said anions consisting of**  
          **(i) at least four fluorine atoms, (ii) at least one atom**  
          **of an element selected from the group consisting of**  
          **titanium, zirconium, hafnium, silicon, aluminum,**  
45     **and boron, and, optionally, one or more of (iii)**  
          **ionizable hydrogen atoms and (iv) oxygen atoms;**  
          **(B) a component of divalent or tetravalent cations of**  
          **elements selected from the group consisting of**  
          **cobalt, magnesium, manganese, zinc, nickel, tin,**  
50     **copper, zirconium, iron, and strontium in such an**  
          **amount that the ratio of the total number of cations**  
          **of this component to the number of anions in com-**  
          **ponent (A) is at least about 1:5 but not greater than**  
          **about 3:1;**

[emphasis added by examiner]

Dolan teaches that the solution may include tungstate (encompassing the types of tungstates recited in claims 2-6) in the amount instantly claimed, as recited in claims 1, 5, 7-9 (col 13):

2. A composition according to claim 1, which also includes a component (G) selected from the group consisting of tungstate, molybdate, silicotungstate, and silicomolybdate anions in an amount such that the ratio of the total moles of tungsten and molybdenum in the 5 composition to the total moles of titanium, zirconium, hafnium, silicon, aluminum, and boron in component (A) is not less than about 0.03 and which optionally also includes one or both of a component (F) of dissolved

[emphasis added by examiner]

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Dolan teaches the temperature, the additives, the application steps, the deoxidation (i.e. acid cleaning) steps and the cleaning steps recited in claims 16-17, 19-20, 22-23, 39-40 and 43 (col 5, line 41 to col 6, line 39; col 7, lines 10-11 and 28-31 and 48-51; col 8, lines 3-8). Dolan teaches that soluble aluminum compounds may be added, as recited in claims 14 and 37 (col 2, line 19). It is noted that claims 39-40 recite a temperature, but the temperature does not lend patentability to the claimed *composition*, since the composition is taught by Dolan and the temperature is merely an arbitrary property that does not effect the composition as claimed. The claims do not distinguish over the teachings of Dolan.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Wada et al. 6,193,815 B1***

5. Claims 18 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. 6,193,815 B1 (Wada).

Wada teaches and is applied as set forth above in paragraph 2. Wada teaches the following pH, which overlaps the pH recited in claims 18 and 41 (col 5):

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tion. It becomes very problematic to obtain a highly corrosion-resistant and strongly paint-adherent coating at a pH in excess of 4.5. The more preferred pH range is 1.3 to 3.0. The pH of the surface treatment bath according to the present invention can be adjusted by adding an acid, e.g., 50 nitric acid, sulfuric acid, hydrofluoric acid, or the like to lower the pH, or by adding an alkali, e.g., sodium hydroxide, sodium carbonate, ammonium hydroxide, or the like to raise the pH.

Wada fails to meet all the limitations of the instant claims in that Wada does not explicitly teach the pH range recited in instant claims 18 and 41.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the pH taught by the reference overlaps that of the instant claims, In re Peterson, 65 USPQ2d 1379, In re Malagari, 182 USPQ 549, and MPEP 2144.05.

***Dolan 5,449,415***

6. Claims 18 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dolan 5,449,415 (Dolan).

Dolan teaches and is applied as set forth in paragraph 3. Dolan teaches the following pH, which overlaps the pH recited in claims 18 and 41 (col 2):

**working composition a pH value that is, with increasing preference in the order given, not less than 0.5, 1.0, 1.3, 1.7, 1.8, 1.9, or 2.0 and independently is, with increasing preference in the order given, not more than 6.7, 6.0, 5.5, 5.0, 4.5, 4.0, 3.8, 3.7, 3.6, or 3.5; and, optionally, one or more of:**

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Dolan fails to meet all the limitations of the instant claims in that Dolan does not explicitly teach the pH range recited in instant claims 18 and 41.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the pH taught by the reference overlaps that of the instant claims, In re Peterson, 65 USPQ2d 1379, In re Malagari, 182 USPQ 549, and MPEP 2144.05.

### ***Allowable Subject Matter***

7. Claims 15 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A primary reason for the allowance of claims 15 and 38, under the above conditions, is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed compositional range of soluble aluminum, as instantly claimed.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Tomlinson 6,083,309 teaches a composition and process for treating metallic surfaces wherein the composition includes Group IV-A metals, such as zirconium, and suggests that the addition of inorganic components, such as tungstates, may relieve stress crack formation in the coatings as they cool (abstract and col 14, lines 6-21).



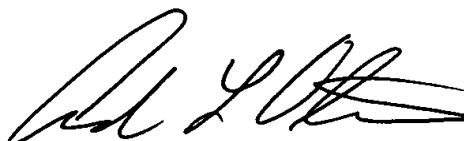
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b. McCormick 6,027,580 teaches a chromium containing conversion coating that includes simple or complex fluorides, such as fluorozirconate, wherein the composition also includes tungstate or molybdate ions (col 5, line 58 to col 6, line 18 and line 46)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 7:00-3:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Andrew L. Oltmans  
Examiner  
Art Unit 1742

May 21, 2003